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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,832	04/14/2004	Kozo Nakamura	61217 (46547)	7737

7590 02/26/2007

Edwards & Angell, LLP
Intellectual Property Practice Group
P.O. Box 55874
Boston, MA 02205

EXAMINER	
NGUYEN, DUNG T	
ART UNIT	**PAPER NUMBER**
2871	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/824,832	NAKAMURA ET AL.	
	Examiner	Art Unit	
	Dung Nguyen	2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 November 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-38* is/are pending in the application.

4a) Of the above claim(s) *16-38* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Applicants' response dated 11/21/2006 has been received and entered. Claims 1-15 are remain pending in the application. Claims 16-38 stand withdrawn from consideration.

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 1-8 and 10-15 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Shimoshikiryou et al., US Patent 6,717,645, in view of Saiki et al., US Patent 6,747,720.

Regarding claims 1-6, Shimoshikiryou et al. disclose a liquid crystal display (LCD) device (figure 1) comprising:

. an LCD cell (100A) having a liquid crystal layer (10);

. two polarizers (106, 107);

. a first optical compensator (103);

. a second optical compensator (105).

Shimoshikiryou et al., however, do not explicitly disclose that the first optical compensator can be changed the polarization direction of a linearly polarized light ray aligning the elliptically polarized light ray as well as the second optical compensator can be changed the elliptically polarized light ray into a substantially linearly polarized light ray. Saiki et al. do disclose that an optical compensator can be used to change linearly polarized light into elliptically polarized light and vice versa (col. 5, lines 35-47). Therefore, it would have been obvious to one skilled in the art at the time of the invention was made to employ such

Shimoshikiryou et al. optical compensators having a function of changing the polarization direction of a linearly polarized light ray aligning the elliptically polarized light ray (for the first compensator) and the elliptically polarized light ray into a substantially linearly polarized light ray (for the second optical compensator) in a particular wavelength (e.g., visible wavelength) since it is a common practice in the art in order to improved display irregularities (see field of the invention).

Regarding claims 7, Shimoshikiryou et al. disclose a retardation value of the liquid crystal layer being 328nm (col. 24, ln. 44) which is closed to the claimed range of 390nm to 550nm. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to employ the Shimoshikiryou et al. liquid crystal layer having a retardation of 390nm since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

Regarding claim 8, Shimoshikiryou et al. disclose the retardation of the compensator(s) of 92nm (col. 23, ln 5).

Regarding claims 10-11, Shimoshikiryou et al. also disclose such compensators located closer to the viewer (see figure 1).

Regarding claims 12-13, Shimoshikiryou et al. disclose the compensators can be an uniaxial compensator (col. 14, ln 12);

Regarding claims 14-15, Shimoshikiryou et al. disclose the transmission axis of the polarizer being perpendicular to the orientation directions of the liquid crystal molecules (see figure 7A) which is twisted 90° (col. 11, ln 3).

Allowable Subject Matter

3. Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

4. Applicant's arguments filed 11/21/2006 have been fully considered but they are not persuasive.

Applicants contend that neither Shimoshikiryou et al. nor Saiki et al. disclose a first optical compensator and a second compensator as claimed. In particular, no suggestion is made by Saiki that it may even be desirable to use an optical compensator " having a function of changing the polarization direction of a linearly polarized light ray aligning the elliptically polarized light ray in particular wavelength. The Examiner respectfully disagrees with Applicant's viewpoint. In particular, as stated in the previous office action, Sakai et al. do disclose an optical compensator can be used to change linearly polarized light into elliptically polarized light and/or to change the polarization direction of a linearly polarized light ray aligning the elliptically polarized light ray in particular wavelength (col. 5, lines 35-47). In addition, at column 4, line 13 *et seq.* (cited by Applicants), it is possible to use one or two or more suitable optical layers (including half wavelengths and quarter wavelengths) with a polarizing plate. Therefore, one skilled in the art would be able to merely find how to combine such optical compensators in the Shimoshikiryou et al. device in order to improved display irregularities (Saiki et al. field of invention).

Accordingly, such combination of Shimoshikiryou et al. and Saiki et al. would be proper and al least obvious to one skilled in the art.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung Nguyen whose telephone number is 571-272-2297. The examiner can normally be reached on Tuesday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on 571-272-1782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DN
02/20/2007

Dung Nguyen
Primary Examiner
Art Unit 2871